

THE PHILOSOPHICAL AND LEGAL IMPLICATIONS OF GRANTING ECOSYSTEMS LEGAL PERSONHOOD

An Undergraduate Research Scholars Thesis

by

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ABSTRACT

The Philosophical and Legal Implications of Granting Ecosystems Legal Personhood

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Literature Review

Christopher Stone, the author of “Should Trees have Standing?”, developed most of the literature on giving natural objects legal rights. He analyzes many legal effects of this process but concludes that, even if this is a reasonable approach to environmental policy, until society has a change in values it will not happen. Stone takes this stance based off of Aldo Leopold’s “The Land Ethic”, where Leopold develops an ethics which focuses on granting whole ecosystems, as individual units, moral value. These two scholars together have penned a majority of the works relevant to providing justification for granting natural objects legal personhood. Contemporary philosophers, such as Gary Varner and John Baird Callicott, have developed strong theories on the moral value of natural objects and ecosystems as individuals. My project will be focusing on studying these theories of environmental philosophy and further researching impacts on the

American legal system in order to produce a more stable basis for arguing for granting ecosystems legal personhood.

Thesis Statement

I plan on reviewing the philosophical arguments for and against treating ecosystems as moral individuals and as legal persons while examining the larger legal ramifications doing so would have on our current legal system.

Theoretical Framework

I will be taking a philosophical and legal approach to my thesis. My project will deal heavily with environmental ethics and environmental policy. I will be analyzing various popular arguments for and against ecosystems' moral worth and legal rights.

Project Description

In the twenty-first century, the entire world is faced with a serious and unprecedented problem: environmental degradation. The earth, to human beings, has been something to claim, something to extract resources from. However, this purely economic approach to environmental policy has caused the best interests of nature to take a back seat to human gratification.

The consequences of such behavior have recently made themselves known, and while some refuse to acknowledge the crisis at hand, others are grasping for a way to solve this problem. Some legal systems (such as India, New Zealand, and Ohio) have flirted with an approach that has failed to be seriously considered by many other countries. This approach grants ecosystems (forests, rivers, lakes, etc...) legal personhood. This method transforms what was previously solely property into both property and individual legal entities, meaning that these pieces of the environment now have the "rights, powers, duties and liabilities of a legal

person” (Hutchinson 2014). This paper serves to review the philosophical arguments for and against treating ecosystems as individuals worthy of moral consideration and legal rights. This paper will also describe how an ecosystem with legal personality would behave in the legal system. This will consist of comparing and contrasting different theories of moral value and ethical treatment, analyzing the current procedures in place to recognize legal entities, critiquing the current system of preserving the environment, and offering unique solutions to improve the conservation of ecosystems through legal personality. If such a bold legal move proves to be untenable, ways to modify the system (or philosophy) in order to yield a legal strategy that is more plausible and efficacious will be suggested. Hopefully, by considering this new conservation technique we will discover a truly useful way of protecting the environment.

DEDICATION

I would like to dedicate this thesis project to my mother and stepfather. They have supported me in every decision I have made including what I would major in and conduct research over. It is due to their overwhelming love, encouragement, and strong work-ethic that I had the privilege of attempting a project like this so early on in my undergraduate career. Though this work may not be the most profound professional piece I ever write, it is certainly my first, and I can think of no two people better to dedicate it to. I truly could never thank them enough.

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Thanks also go to Camp Frappier, who have supported me every step of the way. Whether it was asking me about my research, showing their support during presentations, or providing me a break from school work when necessary. They have genuinely helped shape me into the student and person I am today.

I also have many thanks to give to A&M's Department of Philosophy, with special thanks to Dr. Gary Varner and Dr. Clare Palmer for their instruction in environmental philosophy. I am excited to continue my philosophy education at this university with these amazing professors.

Finally, the biggest thanks go to Dr. Radzik, who has served as a spectacular role model for me since before I ever set foot on A&M. It is through her guidance that I have developed a deep appreciation for learning and have found a profound love for philosophy. If not for her mentorship I may have never strived for the academic and professional success that I do now.

INTRODUCTION

As the decline of the environment becomes an increasingly serious issue we are presented with an opportunity to come up with truly unique and innovative ways to come to its aid. This project looks to reevaluating environmental law as we know it by giving ecosystems legal personhood. In order to develop a coherent understanding of the tenability of such a proposal we need to evaluate the moral status of ecosystems, see how their moral status (or lack of one) affects the argument for their legal personality, and, finally, how ecosystems as legal people would function in real-world application.

Moral Status of Ecosystems

The first step to understanding the moral value of an ecosystem is to observe what kinds of moral value exists, and for what reasons certain entities matter more than others from a moral standpoint. Once we have a good grasp of what matters and why, we need to dive into ethical theories, and see how they consider natural objects and ecosystems as unitary beings. We will then explore major concepts of environmental ethics specifically, with a particular focus on theories and attitudes about ecosystems. An in depth understanding of value theories in respect to ecosystems (and other natural objects in general) will be given before analyzing any possible objections to their moral value. Finally, this section will provide its own value theory which will be used throughout the remainder of the paper. This section will be finished with a review of what things matter morally, why, and what that means for ecosystems per se.

How Moral Values are Affected by Ecosystems with Legal Personality

Once we have a solid understanding of what things matter from a moral standpoint we will observe how giving ecosystems legal personhood would protect those things. It is best to take the opportunity at this point to underscore some functional flaws with the current system of ensuring the environment's protection. Once we have raised a reasonable amount of critiques, we must establish the moral value of the things an ecosystem's well-being affects. This will include everything from inanimate objects to animals to people of the future. We will articulate a sound argument for how giving ecosystems legal personhood preserves those things worth protecting. Then we will address and resolve all major objections that typically arise when first hearing about this proposal. Hopefully, we will be able to answer these objections and quell most practical and moral concerns with respect to allowing ecosystems to become legal entities.

Legal Functioning of Ecosystems as Legal Persons

In the final chapter of this thesis we will be analyzing all the major legal-operational components of allowing ecosystems to be legal people. This includes things such as the requirements to gain legal personhood, the benefits of being an independent legal entity, the unique legal status ecosystems would obtain, how this involves different areas of law, how ecosystems would be represented in court, what kind of damages an ecosystem could sue for, and how this legislative change would affect future policy making. It is the hope that through this chapter we can set up a framework that lawmakers or other researchers could utilize, challenge, and perfect in order to make this legal theory into a legitimate legal practice. This chapter will be written with a particular focus on Christopher Stone's "Should Trees Have Standing", and will

serve to highlight his strongest points while also providing critiques where I believe they were necessary and beneficial to the overall concept of giving ecosystems legal personhood.

CHAPTER I

ON THE MORAL VALUE OF ECOSYSTEMS

What is Moral Value?

Before discussing the possible legal rights of natural objects it is important to observe the general concept of rights on a much more basic level. There is a clear distinction between having a legal right and having a moral right. On one hand, a legal right is a claim recognized and enforced by the laws of a particular legal system. Meanwhile, a moral right is a claim that is recognized and ought to be respected by moral agents. Moral rights typically do become legal rights but that is not always the case. A wife has the moral right not to be cheated on by her husband, but she does not have the legal right. If a thing has moral rights then it is a moral patient and should/should not be treated a certain way due to its moral status. The law simply creates and maintains a list of rules and regulations that help to protect the entities and principles we deem important morally *or* functionally. To create a compelling ethical argument for or against giving ecosystems legal personhood it is important to determine if, and if so, why, exactly these biotic communities have any value deserving of protection, what kind of value that may be, and what kind of protection is appropriate.

All philosophical debates over ethics are basically concerned with two separate realms of thought: value theories and ethical theories. Value theories are concerned with identifying which entities should be morally considered (i.e., who/what can be morally wronged) and what about them confers that moral value. Meanwhile, ethical theories offer ways that moral agents — those capable of doing right and wrong — ought to treat those things with moral considerability

(Coleman, 2012). One of the major tasks of this paper is to discover whether or not natural objects (i.e., animals, trees, rivers, lakes, ecosystems, etc...) have any sort of moral value, and, if they do, why? If an ecosystem's moral value can be determined, then we can begin exploring environment-inclusive ethical theories, which could lead to better justifications for passing legislation in nature's favor.

It is important to note that, even though many things in the world have moral value, not all have the same type of value. Upon reflection, there appears to be a very clear distinction between things with instrumental value and those with intrinsic value. Instrumental value is given to those things that are valuable because they can be used as a resource for entities with intrinsic value. For example, a hammer has instrumental value only insofar as it can be used by someone for some purpose. However, were the hammer to break it would be of no use to anyone and thus would lose all its worth. Its value is derivative from the value of something else. Intrinsic value, on the other hand, isn't nearly as simple. Broadly, intrinsic value can be understood as the value an entity has in itself or as its own end. The term 'intrinsic value' is usually understood in one of three fashions: non-instrumental, non-relational, or objective (O'Neil 1992). Since all three kinds are worthy of lengthy description we will only briefly go over each.

Non-Instrumental Intrinsic Value

Intrinsic value is sometimes simply used as a term for any sort of moral value which doesn't come from instrumental value. When talking of non-instrumental intrinsic value we are essentially saying that an object's moral value is independent from its use to any other being. If it were to be defective in some way it would be of no less value, and would still be owed moral

consideration. If an entity has intrinsic value of the non-instrumental sort then there must be something unique about that being, apart from its utility, which grants it this special value. That being said, a thing with non-instrumental intrinsic value may have additional value due to its utility to others.

Non-Relational Intrinsic Value

Non-relational intrinsic value is also known as Moorean intrinsic value. It claims that the value a thing has depends merely on its non-relational/intrinsic properties. A non-relational property of an object is one that can be described without reference to any other entities. For example, we may value a beautiful mountain range purely for its capacity to create aesthetic gratification. Even if that mountain range were the only thing in the world it would still arguably have that intrinsic property. However, that isn't to say that value from relational properties is necessarily instrumental. For example, many people value the parts of the Amazon Rainforest that have remained untouched by mankind, and wish for them to remain so. The forest's being unsullied serves you or me no purpose (since we cannot extract resources from it), but we still grant it value for that relational trait and wish to protect it.

Objective Intrinsic Value

Intrinsic value can be grounded in two ways: subjective or objective. A subjectivist believes that all value in the world only exists due to the judgments and attitudes of valuers (i.e. human beings). It's a commitment to say that a world without humans is void of any value. Subjective intrinsic value is reason-oriented (reasoning being something only people can do) and distinguished from mere tastes and preferences. It is not arbitrary and can be changed through educating/persuading the valuers. A thing can be *given* intrinsic value usually because of its

history, beauty, or what it represents (for example personal mementos or religious artifacts). However, objective intrinsic value also exists outside the perception of valuers. It is *discovered* rather than given. If one is claiming that a being has objective intrinsic value then they are simultaneously asserting that even if people did not exist in the world then that thing would still have a moral value worth speaking of.

Healthy adult humans are the paradigmatic case of beings with intrinsic value across most value theories. When I reference intrinsic value throughout this paper I will be speaking of an objective non-instrumental intrinsic value. So, if a human being were to be severely handicapped we would consider her of no less value than a perfectly healthy human adult. This is because her value comes solely from her existence, and is independent of her utility to others. Intrinsic value (in most cases) trumps instrumental value when it comes to ethical dilemmas, and is seen as the more “complete” and sought after sort of value. Environmental ethicists today have issues developing a cogent argument for the established intrinsic value of natural objects.

When it comes to ethical theories, a moral agent can commit a moral offense by harming a being with intrinsic value directly or by abusing a thing with instrumental value, which would indirectly harm other beings with intrinsic value. If I were a part of a community that shares an uninhabited pond as its only source of water, I would clearly do wrong to my fellow creatures by draining that pond. However, it could hardly be said that I did anything wrong to the water itself. Whether we notice it or not, we routinely assign things intrinsic and instrumental value in our day-to-day lives. We tend to agree on the moral value of a majority of things but can deviate heavily when it comes to subjects such as fetuses, animals, and the environment. We must first

establish whether or not a thing has any kind of value before we can begin attempting to advance any theories on how we ought to treat the thing in question.

Popular Value Theories and Their Relations to Nonhuman Entities

In the eighteenth century German philosopher Immanuel Kant created a very influential theory of value that is still supported by philosophers today. Kant was a rationalist and believed that things can be known through reason and not only from our experiences (as opposed to an empiricist who believes who can only truly know things we experience). He believes that only humans, angels, and God are capable of grasping the moral law, and, due to this, are the only active participants in the world of ethics (Kant, 2002). The moral agents in the short list above do not derive their moral considerability from their natural feelings but rather from their reason. Their unique ability to reason as a means of discovering moral truths is what imbues them with moral considerability making them both moral agents and moral patients. A human being can identify an ethical dilemma and consequently undergo an internal soliloquy about what course of action should be taken — an act in which intellectually inferior creatures cannot partake.

According to Kant, every other being (i.e., an animal, plant, or inanimate object) unable to reason their way through an ethical dilemma is incapable of both wronging and *being* wronged directly. Under this theory, if I am petting a dog and it randomly bites my hand I may believe the dog is untrained, but would not claim that the dog is morally corrupt. I make no moral demands of it because I know that any demands I make would be essentially meaningless. On the other hand (pun intended), if I were to come across a dog and kick it out of sheer spite, Kant would say that I am not acting at all immorally toward the dog. This is because the dog itself is not capable of contemplating the justness of what I did, and therefore cannot comprehend that it is being

treated unfairly. That being said, Kant would still assert that I have committed *some* kind of moral wrong. I would be in violation of an *indirect* duty to the dog. Human beings have indirect duties to all animals based on our direct duties to other people. By inhumanly treating an animal, a human would be nurturing cruelty within themselves, which could then lead to the cruel treatment of other human beings (Kant 2007). The underlying belief of this theory is akin to the maxim “practice how you perform.” If you treat animals kindly you will treat people kindly.

Prominent philosopher Jeremy Bentham has a very different, and just as influential, theory of value than Kant, one which extends moral patienthood to many animals. Bentham’s consequentialist approach to ethics claimed that there is only one evil and one good in the world: pain and pleasure, respectively. He believes that “they govern us in all we do, all we say, in all we think,” and determine the “standard of right and wrong” (Bentham 113). The only requirement to have moral considerability is sentience — the ability to feel pain and pleasure. This theory develops the principle of utility for a hedonistic calculus; an action is only good insofar as it causes the greatest amount of pleasure for the greatest number of individuals. When presented with an ethical dilemma a moral agent must add up the amount of pleasure and amount of pain one action versus other options will cause and compare them in the aggregate in order to determine the rightness or wrongness of her impending action. By this logic, even though the kicked dog could not grasp the concept of any unethical treatment, its pain adds to the amount of pain present in the world, and so, solely due to its suffering, I, the perpetrator, would have directly wronged the dog.

Both Kant and Bentham put forth well-thought-out theories on moral value, however, this paper does not ascribe to either. The theory of value I will explain later in this essay stands in

strong opposition to Kant, while questioning some of Bentham's basic elements. In Kant's case, I do believe it is true that acting cruelly towards animals can indeed cause like treatment towards other humans, but I hardly believe that it is the only, or even the sole, reason to not treat nonhuman animals so poorly.

To demonstrate this intuition consider that Astrid is the sole voyager on a one-way trip through space. The only other living thing in her spaceship is her pet cat. During the journey, Astrid becomes bored and decides to use her cat as a dartboard. She flings steel darts into her cat causing the cat a conceivably excruciating amount of pain. This example completely sidesteps any of Kant's claims that Astrid is in the wrong since she will never see another human being again. Yet, we feel a visceral aversion toward Astrid's action due to its introducing gratuitous pain unto the undeserving and defenseless cat, and thereby, into the world as well (Bernstein 1998). "Intuition pumps", as thought experiments are commonly called, are invaluable resources when determining the plausibility of arguments in philosophy, and this one clearly shows a flaw in Kant's theory that the ability to reason is the *only* grounding for moral considerability.

Bentham, contrary to Kant, may agree that Astrid is acting morally offensively, but I fear he may do so too hastily. While animals do appear to have some intrinsic value, many philosophers shy away from the prospect that they have the same worth as humans. If having to pick between subjecting an innocent adult human or an innocent field mouse to a life of pain most would save the human, and we would likely criticize those who did not. This presents an odd sort of dilemma when applying Bentham's consequentialism. In theory, either option would be equally good/bad insofar as both the human and the mouse would be destined to suffer to the same degree. However, we seem to be uncomfortable asserting that this is the case and therefore

don't agree that a human's well-being has the same value to that of a small rodent's. This intuition reveals the notion that (at least in western societies) we strongly believe humans are of a special and dominant value. While this assertion may come across as cold and speciesist, I believe there is a sound and reasonable argument to be made which supports this claim while still preserving the intrinsic value of animals.

Environmental Ethics and Holism

Environmental philosophy, being a relatively new field, has very few refined arguments for the intrinsic value of nature. However, there is one theme that keeps recurring throughout the discussion on the more status of natural things, holism. Holism stands as the polar opposite of its counterpart individualism. Holism is a theory of moral value that claims natural wholes, such as ecosystems and species, have intrinsic value of their own. No longer are biotic communities merely collections of various objects, but rather a single articulate whole with its own unique set of emergent properties, properties which could grant them moral status. This means that things such as forests, deserts, lakes, rivers, tundras, etc. are all credited with having moral considerability and thus can be wronged *directly* without ever utilizing the argument that their worth comes from serving people (Callicott 1989). Conversely, an individualist would focus on the value and rights of each atomistic element of an ecosystem or species, such as the particular animals or trees. Between the two, and in the context of this paper, it may well seem that a holistic approach to ethics is the perfect solution for developing a coherent argument that ecosystems ought to be given legal personhood of their own. In this section, I will be looking at the concept of holism, and analyze its interpretations in order to better understand the concept in its truest form.

Holism is seriously considered by twentieth-century philosopher Aldo Leopold and has since been heavily interpreted and reapplied by environmental philosophers. Leopold's *Sand County Almanac*, where he developed his Land Ethic, has been highly influential in modern philosophy and is considered by many to represent the paradigmatic case for environmental ethics. Leopold prefaces his theory with the claim that ethics is an evolving enterprise. He believes that society is constantly evolving to grow the boundaries of the things it considers morally valuable. Just as has happened with society's attitudes towards racial minorities and women, he asserts that society will naturally grow to recognize the value of those things found in nature, such as plants, animals, and other natural entities. In "The Land Ethic" (which is the selection I am most concerned with), Leopold transforms humans from the "conqueror of the land" to a "plain member and citizen of it" (Leopold 173). This has been interpreted as a prescription that we must no longer see ourselves as the highest priority in our ecosystems, and should allow ourselves to suffer or benefit insofar as it aids in the pursuit of our biotic community's prosperity. We are neither above nor below the plants, animals, or inanimate objects that make up our community, but are simply equal to them. Once moral value has been transferred from us to the biotic community Leopold presents to us his original rough ethical theory, the Land Ethic: "a thing is right when it tends to preserve the integrity, stability, and beauty of the community. It is wrong when it tends otherwise" (Leopold 188). This premise of rightness and wrongness follows suit in placing the community above everything else, but is a deal-breaker to many due to its potentially disastrous implications for human beings. Leopold's work has many interpreters, but none so well known as John Baird Callicott.

Callicott is one of the many who believe Leopold's Land Ethic to be the shining example for environmental ethics to follow. He is an adamant endorser of holism and believes it is the best available route to creating and maintaining effective environmental policy. In addition, Callicott is vehemently opposed to individualism in any sense (be it anthropocentrism or animal liberationism) because it causes contradictions when used to consider the welfare of a biotic community. What is right for one organism is not necessarily best for another, and no one act could be good for all the members of a biotic community. Callicott maintains that in some instances it is necessary for an individual to suffer as long as their suffering is a requirement for the advancement of their biotic community as such. In short, since the interests of an individual are subordinated to the interests of the community, there are a lot of acts currently deemed morally incomprehensible that would be, not only permissible under the Land Ethic, but required. Callicott gives the example that in the face of a population explosion of white-tailed deer it may be required of us, in order to protect the local environment, to hunt and kill them (Callicott 1980). Callicott glosses over the fact that humans too overpopulate many "local environments", nevertheless many have pointed out that due to this objective statistic the Land Ethic would then require us to see to our own destruction up to a certain degree. This is a way of living that Callicott believes we will evolve into accepting, and it is exactly due to this line of reasoning that many accuse Callicott and the Land Ethic of being 'ecofacist' and dismiss the theory outright.

Callicott has since updated his interpretation of Leopold to say that the Land Ethic is not a substitute for our current human ethics, but is instead an "accretion" (Callicott 1989). In this revision, Callicott contends that the rules, maxims, duties, etc. of the Land Ethic are second order

principles, while all of the moral obligations grounded in our current ethical beliefs (as a society) are first order principles (Callicott 1989). If we are to believe that the Land Ethic only adds another layer to current ethical theories, then it becomes virtually useless. If in the modern world the protection of nature is subordinated to our so called 'first order' duties then the Land Ethic would only be applied in a negligible number of situations. Our second order principles would take the backseat to our first order principles so often that the environment would enjoy little to no consideration by humans.

Problems with Holism

It should be noted that Leopold presents us with both a value theory and an ethical theory. It is the ethical theory I take issue with, but it would be improper to do away with his base claim of an ecosystem's moral value for that reason as well. So we are left with the question: do natural wholes have intrinsic value? We may have found flaws in an argument that presupposes the value of an ecosystem above all else, but that doesn't necessarily mean that an ecosystem cannot have any intrinsic value at all. However, the Land Ethic aside, I nevertheless still believe that holism is a very difficult position to take. Holists have a very heavy burden to shoulder when articulating any sound arguments for an ecosystem's intrinsic value, and they must do this without falling prey to several very common and appealing logical fallacies.

From the very beginning, holists run into the ontological problem of ecosystems. Contrary to popular belief, there is no one agreed-upon definition for an ecosystem in the scientific community. There are numerable competing definitions all of which have their own merits. The first trial of a holist is to decide whether they wish to take an anti-realist stance (the claim that there are no ecosystems that exist outside, and independent of, the human mind) or a

realist one (the belief that ecosystems of at least one kind do indeed have independent existence) (Garcia and Newman 2016). From there they must decide whether to take a pluralist position or a monist one in regards to the existence of different kinds of ecosystems (Garcia and Newman 2016). Is there just one type of ecosystem or more than one? Defining an entity is imperative when trying to ascribe it value and rights, since it has to be understood that the entity *itself* has a welfare of its own, which can be directly benefited or harmed by the actions of others. It would be nearly impossible to establish an ethical theory that favors natural wholes when we are unsure of where those wholes begin and where they end.

Once a holist has confirmed what exactly it is they are arguing for they must (1) identify interests that belong to natural wholes as such rather than the interests of the objects that constitute them and (2) explain why satisfying those interests should even be considered morally good. It is here where we tend to hear arguments that become logically flawed (Newman, Varner, and Linquist 2017).

Reductionist Slippage

The reductionist slippage is a direct nod towards task (1). Ecoholists have to be careful not to make the claim that what benefits the animals, plants, and other individuals in an ecosystem also benefits the ecosystem per se. There must be a clear distinction between things that are good or bad for an ecosystem itself and good or bad for its members. As mentioned before, no single act can be good for every single member of a biotic community, but where do we draw the line when we start to claim that some act is good for the ecosystem? It may be tempting to answer this question by adding up the total good and bad that some action brought

upon the members of a community and go from there, but this is not truly a *holist* approach but a *reductionist one*.

The Appeal to Nature Fallacy

The appeal to nature fallacy is committed when moral value is assigned to things found in nature simply because they are natural, and is a fallacy commonly made when trying to prove (2). Morality cannot be equated with natural characteristics because such a claim does not answer *why* those natural characteristics are good from a moral standpoint. This can be easily understood by observing that some things which can be found in the natural world, such as pathogens and painfully deadly viruses, are quite clearly not considered of any intrinsic value. Perhaps, at best, they are of instrumental value when considering their ability to inhibit massive population growth. However, that value is situational and disappears when there is no need for a population's culling. Moreover, even if we desire for environments to be in their “natural” states it is hard to understand what exactly those are. Some environmentalists judge a state of nature without human beings (a.k.a. “pristine”) is itself intrinsically valuable. However, just because nature has properties A, B, C, ..., N without people around doesn't necessarily mean that it ought to have those properties. We may indeed have a preference for those properties to exist, but there is still no explanation put forth explaining why those preferences are moral imperatives.

The Fallacy of Composition

The fallacy of composition is committed when a characteristic in a part of some whole is observed and is thereby applied to the whole itself. If I were to weigh the engine in a car and see that it is around 500 pounds, I couldn't logically come to the conclusion that the car itself is also around 500 pounds. The ecologist can easily make this mistake when trying to prove her

argument for a natural whole's intrinsic value. Simply because the animals or plants of an ecosystem (or each animal in the case of species) may have intrinsic value, we cannot reason our way into claiming that the ecosystem itself has intrinsic value. This is similar to the reductionist slippage but goes further by saying that *because* the members of a community have value then so too does the community as one unit.

The Genetic Fallacy

Also called the origin fallacy, the genetic fallacy is seen less often but still often enough to be discussed here. In general terms, this fallacy is committed when an event that was required in order for a subsequent valuable or disvaluable event to occur is considered itself to be of the same value as the thing it caused, simply based on the fact that the first did indeed cause the second. For example, if we are to agree that colonizing an indigenous community is a bad thing, it is not the case that the mere discovery of said indigenous community by colonizers is itself bad. An ecologist can make this mistake by declaring that a natural whole is necessary to 'give rise' to its members of intrinsic value, and because of this has its own intrinsic value. This is often an overlooked argument because most agree that only individual organisms truly 'give rise' to other organisms through reproducing, and do not exist merely due to the existence of the natural whole they belong to.

Axiological Anthropocentrism and the Principle of Inclusiveness

In light of the flaws of holism, I have decided to adhere to entirely different value and ethical theories for the sake of this project. I have found that the best possible answer lies within the principle of inclusiveness augmented by axiological anthropocentrism, and practiced through

consequentialism. The principle of inclusiveness and axiological anthropocentrism are both heavy with a meticulous vocabulary that I feel should be explained thoroughly beforehand.

The principle of inclusiveness (as it is named by philosopher Gary Varner) is presented by Ralph Barton Perry as the “standard of inclusiveness” and speaks of interests as the things that confer moral value onto objects. Since it is a vital term for this principle we should distinguish “interests” from needs and desires in order to curb future confusion. Any thing can have a *need* in order for it to be a good thing of its kind. My phone may need to be charged, but only because that is a requirement for its proper functioning. If I neglected to charge my phone I don’t feel as if I have wronged it, because it is not a thing that can coherently be said to have a good of its own (i.e. welfare). Needs don’t imbue a thing with moral value, but entities with moral value can have needs. On the other hand, to say that a thing has *interests* implies that it has a welfare of its own. Interests seem to be the properties of sentient organisms exclusively and exist to further an individual’s well-being. Since the welfare of any individual matters from a moral standpoint, the satisfaction of any interest creates “fundamental moral value” (Varner 77). Finally, a *desire* is a conscious want. A desire always necessitates an interest, but not vice versa. It may be in my interest to get a sufficient amount of vitamin D daily, but I don’t really have the conscious desire to do so. At the same time, if I have a desire to go into the kitchen and eat all the oatmeal cookies my sister just made, then I *take* an interest in doing so. Satisfying that interests still generates value, however, it must be weighed against other interests as well. It is *in* my body’s interest to be properly nourished and eating all those cookies would simultaneously dissatisfy that interest.

Now that we have covered the main terms needed to understand the principle of inclusiveness we should see what it actually says:

The standard of inclusiveness may... be expressed as follows. If an interest *M* confers value on its object *a*, and if a second interest *N* confers value on the same object, the interest *M* persisting, it follows that *a* derives augmented value from this fact. Or if *a* is the object of favorable regard of both *M* and *N*, and if either of these interests be withdrawn leaving the other, there will then be a loss of value, although *a* will still retain value owing to the remaining interest. (Perry 642; qtd. Varner 80)

In order to apply the principle of inclusiveness in a way that makes it wholly unobjectionable we must assume (as Varner suggests) two things:

(A1) The satisfaction of any interest is, considered in and of itself, a good thing (and the dissatisfaction of any interest is, in and of itself, a bad thing), and

(A2) Only the satisfaction or dissatisfaction of interests matters from the moral point of view (Varner 84).

For the purposes of this paper, we will grant both these assumptions.

Despite what the principle of inclusiveness claims, it is apparent to us that not all interests are of equal value. However, it is very difficult to assign set values to the satisfaction or dissatisfaction of every interest. Consider interests A, B, and C. Interests A and B are of trivial

value (akin to my desire of taking only an even numbers of steps in each floor tile), and interest C is of objectively high value (such as your interest in breathing enough oxygen to live).

Obviously the satisfaction of C is of much more importance than the satisfaction of both A and B combined. Moreover, this conclusion would ring true even if A and B were added together with an infinite number of trivial interests. Interests appear not to have the ability of being assigned finite value, because (if that were the case) eventually the trifling desires of all the bored walkers in the world would eventually trump your single interest in breathing. This must mean that there are different *kinds* of interests, but Perry doesn't take steps in helping us identify them. Without a way of determining which interests are more important Perry's principle of inclusiveness leads us to many ethical stalemates when facing cases where two competing interests cannot both be satisfied.

This is where Varner's axiological anthropocentrism steps in. Axiological anthropocentrism introduces new terms in order to craft the following premises:

(P2') Generally speaking, the satisfaction of ground projects is more important than the satisfaction of non-categorical desires.

And the following assumption:

(A3) Generally speaking, ensuring the satisfaction of interests from similar levels in similar hierarchies of different individuals creates similar amounts of value, and the

dooming of interests from similar levels in similar hierarchies of different individuals creates similar levels of disvalue (Varner 90).

As one can see, axiological anthropocentrism introduces a few more terms that need explaining. Interests are essentially broken down into three different types: categorical, noncategorical, and basic (Varner 2002). Categorical desires are best described as those things that we believe make life worth living. They tend to require quite some time to satisfy and at least some kind of sophisticated cognitive ability to form. Some examples of categorical desires would be having a successful career, finding a loving relationship, having a family and kids, and being in great physical and mental shape among other things. The satisfaction of the interests that these desires create is of much higher importance than the satisfaction of noncategorical desires. Noncategorical desires are those inconsequential desires that, if left unsatisfied, are not considered to have any impact on our outlook on life. They are typically short term in nature and are had by higher-level mammals as we know them. As I mentioned before, I may have a desire to eat those cookies my sister made, but if for some reason I am unable to then I won't think that life is any less worth living. Finally, basic interests are not necessarily desires, but are those things whose satisfaction is required for other interests to be consequentially created and completed. They are typically found in vital biological functions (so there are basic interests for the heart to beat, the lungs to work, for the brain to be healthy, etc.), but not all biological functions are basic interests (for example, your eyes' ability to take in sensory information is a biological function, but not a basic interest since being blind will not itself kill you). All animals have some basic interests as they do not require consciousness in order to be satisfied. Due to

these characteristics, the satisfaction of basic interests does not create value itself. They are not categorical, because a life where only basic interests are met (e.g. a permanently brain-dead patient) would not be said to be a meaningful life at all (Varner 2002).

Ground projects are the key to axiological anthropocentrism. Ground projects are the cumulation of all the categorical and noncategorical desires that a human being has, and their satisfaction is considered to create the highest value of all. They are built on basic interests, consist of many categorical desires, and contain an innumerable amount of noncategorical ones. Essentially everything a human life consists of. Some may worry the claim that the satisfaction of ground projects yields the highest amount of value is speciesist since it automatically places human lives above all other ones. However, this assertion isn't a presupposition of a human beings moral importance, it is merely a matter of fact that no species other than humans currently has the cognitive sophistication to create them. Axiological anthropocentrism is distinguished from valuational/typical anthropocentrism due to the fact that it holds that a human's cognitive capacity is what gives her more-developed interests higher value than the usual interests of non-human organisms. It is anthropocentric only insofar as it *happens* to favor human beings, and not because being a homo sapien is a requirement for the highest consideration.

With Varner's addition of a new hierarchy of interests, the principle of inclusiveness becomes applicable to a greater number of ethical dilemmas where humans are involved. By distinguishing between the value that is created from the satisfaction of different kinds of interests we are better able to deduce how moral agents are to act.

(A3) in conjunction with (P2') provides us with a similar notion as the original principle of inclusiveness. It maintains that between two desires, this time as long as they are of the same

kind, there is still no way to assign one more value than the other. The principle of inclusiveness modified by axiological anthropocentrism is different in the sense that between competing desires of different castes we now have a *prima facie* case for acting in favor of the more valuable one. It may not provide the answers for all cases but does offer a course of action for most. Say there were rats carrying potentially dangerous diseases living in your house we now have a *prima facie* reason to kill the rats and doom their interests rather than allowing them to doom a single ground project. Now we have readily identified the different kinds of interests and can explain why it is that a high number of noncategorical desires still cannot demand the destruction of a ground project for their satisfaction. The two kinds are incomparable (Varner 2002). This realization makes the principle of inclusiveness much more functional, and makes the moral weight of our interactions with ecosystems a bit more clear (as I will explain in depth in the next chapter).

Axiological anthropocentrism answers my qualms about Bentham and his sentience criterion for moral considerability by still allowing for people to maintain their superior moral status to lesser animals without making any reference to a person's mere 'humanness.' In the real world, almost all our decisions involving animals and the environment affect humans directly. Some radical environmental philosophies are seen as the only legitimate way to have people respect nature the 'proper' way. The principle of inclusiveness with axiological anthropocentrism, however, allows for us to not make any rash claims that there is a duty to protect all the interests of all animals at all times, but still makes it the case that they ought to be taken into consideration from a moral standpoint. We have established that holism is not the best argument when trying to

give natural wholes moral value, but with this new approach I feel it is still quite possible to make the case for granting ecosystems legal personhood.

In summary, even though we will be dealing with ecosystems for the remainder of this paper, we have established that they themselves do not count morally. This comes majorly from a confusion on their existence, and a failure to explain what is good for *them* per se. Ecosystems, once a concrete definition forth arises in the literature, could prove to be of remarkably high instrumental value. Although I could not establish intrinsic value for ecosystems this paper did serve to illustrate which entities have intrinsic value. It is the findings of this thesis that animals and people are the only things with objective non-instrumental intrinsic value. Their intrinsic value is grounded in their capacity to have desires and form interests. Humans, however, are objectively more valuable due to their ability to form ground projects. All of this information will still play a vital and helpful role when developing the argument for granting ecosystems legal personhood.

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CHAPTER II

APPLICATION OF PHILOSOPHY TO GRANTING ECOSYSTEMS LEGAL PERSONHOOD

It may appear odd that since I do not believe in the intrinsic value of ecosystems in and of themselves that I think they could (and should) still be given legal personhood. This is because up until this point, each time I have spoken of holism I have actually been talking of *ethical* holism (believing that ecosystems should be recognized and treated as singular moral entities). There is a holism of another type altogether called *practical* holism. I currently consider myself a practical holist. Practical holism and ethical holism are by no means mutually inclusive. Practical holism instead functions under the same logic that grants corporations legal personhood without being forced to also recognize their independent moral value. I simply maintain that *as a matter of expediency* we should manage environmental systems as wholes due to their complex and fluid nature. As I will soon explain, practical holism will lead to the overall best possible good for all the members included in and affected by the well-being of ecosystems.

On Granting Legal Personhood to Entities with Intrinsic Value

Since we have already established what things matter morally in and of themselves it seems natural that an argument for giving legal personality to *those* things specifically would follow, (i.e. animals). However, I believe my approach of giving legal rights to ecosystems per se instead would be much more efficient and *realistic*. In any given ecosystem it is quite apparent that there are conflicts of interests in nearly every situation. For example, a gazelle's interest in living is upset by the cheetah's desire to hunt down and consume its prey. However, neither are

moral agents and, similar to the vicious dog, we cannot make any moral demands of them.

Trying to punish or rectify any ‘wrongs’ they have committed would be frivolous and a waste of legal resources. Even if we observe instances where humans harm animals many problems would still arise. If a deer is hit by a car, how can one offer compensation? Legal entity suing legal entity is an aspect of civil law (as opposed to criminal) and there would not be many routes available for compensating an animal if it were to die in an accident. In the typical application of the Wrongful Death Tort a victim's family is compensate monetarily for their loss. However, it would not be reasonable nor productive to expect human defendants to track down and support the family of the deer they accidentally hit. Not only would it be insubstantial to protect the interests of each and every animal, but it would be additionally difficult to find legal representatives willing to bring suits on their behalf. By making granting animals legal personhood we additionally face the problem of giving them rights that rival humans. None of these problems would occur if we instead use the moral worth of those affected by the wellbeing of an ecosystem to grant that ecosystem its own legal powers.

Why is this Legal Practice Superior to the Current One?

Some may argue that the system we currently use to protect the environment is sufficient. The federal government has already created the EPA, Department of Interior, and several other administrative agencies to protect and promote the preservation of the environment, ecosystems are indirectly protected through human legal personhood, and any major damages suffered by the environment are not ignored. Unfortunately, though, not all of these arguments are true.

Unreliability of the Administrative Agencies and the Federal Government

The Environmental Protection Agency was indeed created with the prosperity of humans and nature in mind, but, as a part of the executive branch of the federal government, its power expands or shrinks in accordance to the political party in office. The resources it can draw from are restricted at random intervals, laws put into place by one administration's EPA are liable to be rolled back by the next, and leadership positions within these sort of agencies are not always given based off of their merit or intention to protect the environment. States themselves have tried to address this problem, but to little effect. Some states sought to overcome these inconsistencies by allowing the attorney-general to sue for abatement of pollution in limited instances. However, the attorney-generals of these states rarely employ this power, and when they do it is diminished by the construction of the courts (Stone 1972). This attempt at a solution didn't change the most debilitating component of the environment's protection; it still falls under public law. Attorney-generals themselves are still political creatures and make decisions based on their likelihood of reelection, once again making the environments wellbeing a potentially second order priority. By granting ecosystems legal personhood the protection of the environment is no longer a part of public law but is now transferred to private law, which makes it much more reliable since the ecosystems could defend themselves *themselves*.

Motivational Problem of Pursuing Recompense

To better illustrate how our current system works consider that there is a factory on the bank of a river and downstream are ten farmers who use that river to water their crops. One day the factory has an accident due to mismanagement and pollutants pour into the river. These pollutants taint the water, kill the wildlife within, causes eutrophication, and otherwise damage

the ecosystem that is the river. These damages cause each farmers to all lose say \$1,000 worth of crops, but the aggregate is \$10,000. The only way the river could be restored in an official capacity is if those harmed by its destruction (those who have standing) file a lawsuit against the factory and seek compensation. Though they may even have a strong case against the factory (due to its negligence) the high cost of legal fees may dissuade each individual farmer from suing. They may choose to simply absorb the damages suffered and take no legal action, thus the damages the river has endured are left unresolved. Leaving the river of little use to wildlife or the human community; its poor condition inevitably harming future persons through the absence of resources. The environment, as it is today, relies on a very shaky defense derivative of humans' legal personality, but if it were to gain its own then its wellbeing would not be contingent on the motivation of humans to take action. Motivation to pursue legal action would become an issue in a much narrower number of cases.

The Time & Space Problem of Damages

Lastly, whenever discussing environmental degradation, there is a major epistemic problem of damages. Typically, when an ecosystem is being harmed it is in smaller, more subtle ways, rather than the large scale scandals we tend to think of. These damages occur frequently over large spans of time and over large areas. Though one offense may not be significant, over time they become serious problems in the aggregate. However, with our current system, there is not an effective procedure in place to combat these smaller infractions in a timely manner. Since these damages are dispersed across substantial amounts of space and time they are by no means alarming as in their individual instances. However, there is no guaranteed way of knowing whether or not these issues will become crises in the future. By granting ecosystems legal

personhood and legal representative they are focused on a lot more intently, making finding and curing these problems much easier and quicker. This new found power allows one ecosystem to collect the fragmented and unrepresented damages it suffers and subsequently present them before a court.

That being said, axiological anthropocentrism combined with consequentialism does still serve as an argument in favor of granting ecosystems legal personhood. I actually believe that granting this form of protection onto ecosystems will lead to the satisfying of interests and ground projects on many fronts in addition to providing protection to those things we believe have instrumental value. In the final section of this chapter, I plan on describing exactly whose interests are being protected and how exactly an ecosystem with legal personhood could potentially protect them. In the later chapters of my project, I will go into greater detail about how an ecosystem's legal personhood would function in practice, but for now I will simply state that an ecosystem with legal personhood is better equipped to be restored, protected, and conserved than the ecosystem that is not.

Protection of Resources

I will begin with the protection of the resources of instrumental value to the things of intrinsic value that are included in an ecosystem. By no means is this the strongest argument for protecting ecosystems, but it is certainly a consideration. If an ecosystem were to be given legal personhood then all aspects of it including the plants, animals, and natural objects would be supplied with extra protection. Plants, the soil, certain rocks, and rivers are all examples of natural objects with instrumental value. Now, just because these things do not have a welfare of their own does not mean that we cannot do wrong in our interactions with them. I am asserting

that I do not commit a moral offense to a plant directly if I were to needlessly uproot it, but am harming all the animals and people that this ecosystem's welfare affects. Plants are of especially high instrumental value, and a plethora of interests can be easily infringed upon by their wrongful death or abuse. Plants provide food for all animals (humans included), produce oxygen for all creatures, and contribute to the health and sustainability of an ecosystem through means of contribution to natural phenomena such as the carbon and water cycles. Similar to the example of draining the community's pond at the beginning of this paper, we can commit moral offense to others in the ecosystem by harming these entities *en masse*. If an animal of any sort cannot meet its basic interests (which plants and other natural resources greatly assist in satisfying) then their remaining interests would consequentially certainly go unsatisfied if those resources are harmed/destroyed.

Protection of Animals

In addition to an animal's basic interests being satisfied through conservation of the ecosystem so too are their remaining interests. An animal of moderate to high intelligence can have noncategorical desires that give them value. For example, their desire to sing or dance to attract mates or to chase and corner prey in the eventual effort to eat them. Some animals, it seems, are at least capable of forming these noncategorical desires and have interests staked in the near future, but are still incapable of seeing so far into the future as to develop any categorical desires. Nevertheless, it is still better for these noncategorical desires to be satisfied rather than unsatisfied. The continued existence of the environment in which they live supplies animals with the food, water, mates, and other resources necessary to satisfy their interests.

Again, this is not the strongest point to support an ecosystem's candidacy for legal personhood, but since it involves interests to be satisfied it is still worth consideration morally.

Protection of the Interests of Humans Today

The penultimate reason for giving ecosystems legal personhood is because of the effects it would have favoring the advancement of the interests of current human beings. All human societies depend on the ecological background on which they are built and rely on the services provided by natural ecosystems (Newman, Varner, and Linquist 2017). This means that humans themselves have at least some interest in inhabiting an ecosystem that can provide services.

Gretchen Daily defines these 'ecosystem services' as "the conditions and processes through which natural ecosystems, and the species that make them up, sustain and fulfill human life" (Daily 3). These services that Daily is discussing contain systems vital for any human to lead a healthy life such as water purification, air purification, soil fertility, and food production among other things. These services ultimately satisfy human interests and are provided only by stable functioning environments. The satisfaction I am talking about for humans does not apply to just our basic interests alone (though those are very much included). People, especially today, have conscious desires for the things nature offers such as clean air and pure water. I have a basic interest in breathing air and drinking water for the sake of staying alive, but I also (as most tend to as well) have a desire to breathe in *clean* air and consume *pure* water for the sake of my comfort and overall health. It is worth mentioning that we also have conscious desires whose satisfaction destroys ecosystems such as eating beef, fracking for natural gases, mining metallic resources for technology, etc. These other desires are really only of the noncategorical type; we don't think life is not worth living without their satisfaction. Meanwhile, the services that I

mentioned earlier contribute to either satisfying basic interests or allowing our bodies to exist in comfortable states. While the satisfaction of many current ground projects and their atomic parts are tied to the wellness of the environment there are a whole other, potentially larger, subset of interests that we must concern ourselves with. The ground projects of future generations.

Protection of the Interests of Future People

The moral value of future generations can and should be taken into consideration when deciding how to manage our ecosystems today. Consideration for future persons is highly contested topic in philosophy, and is worthy of a master's thesis in and of itself. However, as philosopher Joel Feinberg argued, unless a massive and unforeseen change occurs sometimes soon there *will* be humans with the same interests and desires as us living many generations into the future (Feinberg 1974). In the real world, it is almost a guaranteed fact that people today will reproduce and give rise to future generations. Since we can be so certain of their existence we ought to give serious thought to the satisfaction of the future ground projects that will be manifested. Even if now it seems like a change to environmental policy would do nothing for our present quality of life, it is conceivable (in light of recent data) that in just a couple generations our descendants will be at risk of living in infertile and desolate ecosystems. This quality of living would be drastically lower than in modern lives since it will conceivably inhibit the satisfaction of many ground projects. By empowering ecosystems to defend itself will allow for them to be better equipped in ensuring their own sustainability. If ecosystems fail to functional and give miserable life to future inhabitants of the world, then a simple consequentialist calculus shows that it is a moral imperative for us to make sure that that does not happen. Of course, people and animals today will reap many rewards from this arrangement. However, it is mostly

in the large amount of future grounds projects at stake that this argument finds its philosophical grounding.

Major Objections to Granting Legal Personhood to Ecosystems

Granting ecosystems legal personality is *such* a huge policy change that inevitably many objections would be raised. That being said, I would like to address some of the major ones here and provide feedback on how this ethical theory I have offered may solve them.

The Man on the Mountain

As I have been conducting my research I have been repeatedly presented with a certain thought experiment which I now believe I can reasonably answer. There is a man who has gone hiking on top of a mountain, and after a few days the Park Rangers receive word that the hiker is stuck at the top of the mountain with no access to food or water. The only way to save the hiker is to drive a vehicle which, upon rescuing the man, will leave a wake of destruction in its path. Trees will be uprooted, habitats overturned, and food sources destroyed. What ought the rangers to do? If you take a stance similar to an early Calliott you would claim that we should leave the man to die, because that would be better than committing such a serious moral offense to the ecosystem and its inhabitants. This is, however, a hard pill to swallow for most, and certainly not a reality we would ever accept today or even in many years to come. On the other hand, we must not outright ignore the damages that will be done to the natural world if the man were to be saved. Under the principle of inclusiveness with axiological anthropocentrism applied the answer actually becomes quite clear. Though there are many moral patients (the hiker, the animals, the environment's resources, other contemporary people, future people) to consider in this scenario, and we can in no way do right by all of them. The answer is clear; we should save the hiker. We

must remember that the man has a ground project at stake which is under immediate threat. Even though many noncategorical desires will be upset in the effort to protect the man's ground project, the disvalue created by their detriment does not outweigh the disvalue that would be created by letting the ground project be destroyed. The ecosystem will suffer up to a certain extent to save the one person.

This being said, the thought experiment should be taken one step further. Now that the man is saved we are confronted with a new problem. The ecosystem has been damaged in a very serious way. Plants and other resources have been taken away from the ecosystem and therefore have taken a toll on the satisfaction of interests of all the beings who relied on them. I believe that we ought to replace what was lost to a reasonable degree. Those things of instrumental value are replaceable and if restored will rectify the harm brought upon those things with intrinsic value in the ecosystem. If trees were torn down new ones should be planted in their place, if water was contaminated there should be steps to purify it again, anything reasonably possible to help the environment be restored to its previous state should be done. Animals themselves, though, are not all replaceable, and, as unfortunate as it may be, if their deaths are required for rescuing the hiker then there is a *prima facie* to allow for them. Though this one instance would not conceivable cause enough damage to be a serious threat to all future generations and current humans the ecosystem should be replenished for their sake as well. One instance may not be detrimental to humans as a race, but in actuality these instances would add up quickly and thereby would swiftly become a significant threat to all persons. By mitigating the harmful consequences to the ecosystem we help preserve the interests that were set back of animals and current humans, and protect the ground projects of future persons.

The State of the Ecosystem

One rather large objection in all efforts to pass legislation for the conservation and restoration of natural entities is what exactly is it we are trying to protect? What state of the ecosystem should be the one we are working towards? Some die-hard environmentalists advocate for a “pristine” state of nature — one where there is no trace of human intervention —, others believe that the environment is for human beings to use and see no problem in it being humanized, most fall somewhere in between. It’s hard to pin down exactly which condition of an ecosystem is the ‘right’ one, and is not a problem I believe can be solved in the span of this paper. However, it is not the goal of giving ecosystems legal personhood to give them a chance to return to a primitive state. Not only is this unrealistic (as this would include removing all traces of humanity), but it is also unethical. By trying to take the ecosystem back to the way it is ‘meant’ to be we would be required to cull invasive species (destroying all of their categorical desires), remove entire human communities from the ecosystem they inhabit (setting back their interests and desires), and do away with man-made inventions which actually support environments and aid in the well being of an ecosystem and its inhabitants.

In Chapter 7 of Ecuador’s constitution rights are given to Pacha Mama (Mother Earth) in pretty broad strokes. In Article 71 the power to protect the environment in a legal capacity doesn’t lie within the ecosystems themselves but instead with the Ecuadorian public with this guideline: “[Nature] has the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes.” I take some issues with the assertion this makes, but believe the sentiment is a nice place to begin. As I will explain in a little bit, it should not be the case that ecosystems have an absolute right to their

existence, functions, or restoration, but the condition of ecosystems we are attempting to achieve by giving them their own legal standing is in this spirit. No single state of nature is ideal, but as long as the interests and ground projects associated with a certain ecosystem are being preserved then *that* is the condition we should strive for. And we can guarantee the satisfaction of those interests by supplying ecosystems with the legal personhood necessary to give them a chance at maintaining their existence, life cycles, structures, functions, and evolutionary processes.

Inhibiting the Advancement of Humanity

Since my stance is after all anthropocentric, it must be stated that I do not believe ecosystems should be given complete immunity from all human use. This is why I support giving ecosystems legal personality rather than making it a law that they cannot be harmed. It is a concern that if we employed such an extreme legal tactic then humanity would be prevented from doing things which advances itself. If it would be marginally better to use the space an ecosystem occupies in order to satisfy more ground projects (say clearing a forest to build some super hospital which would benefit the ground projects of modern and future people) then axiological anthropocentrism with consequentialism grants us a *prima facie* case for doing so. That is what is important for allowing the human race to prosper, which is the main objective of this while endeavor. However, the destruction/drastring of an ecosystem should morally only be a last resort. For example, drilling for oil in the arctic should be considered morally wrong just in case there is technology present to utilize and further research other methods of cleaner energy or less invasive extraction techniques. Unless the need for oil is absolutely urgent (i.e. many ground projects and interests would be destroyed without immediate access to oil) the arctic should not be so damaged. Giving ecosystems access to rights such as due process would

allow their trustees to present evidence, call upon expert testimony, and otherwise defend them in an effort to avoid their needless/unjust destruction. This will ultimately serve humankind in the best way possible by ensuring the continued satisfaction of the basic interests and ground projects of humans today and of humans tomorrow.

On Anthropocentric Arguments in Support of Nature's Rights

Finally, before moving on to the legal-operational aspects of giving ecosystems legal personalities I would like to address the concern of using a somewhat anthropocentric argument to help protect the environment. It is the worry that any environmental philosophy based in anthropocentrism, in a way, misses the point. To claim that nature should be morally considered because of its relationship to human beings overlooks the notion that nature has moral value independent from human judgements. Christopher Stone (the biggest advocate for natural objects to be legal entities) seems to look down upon anthropocentric arguments for the attribution of rights for nature. He states the following:

“even where special measures have been taken to conserve them (natural objects)... the dominant motive has been to conserve them *for us*. For the greatest good of the greatest number of human beings. Conservationists, so far as I am aware are reluctant to maintain otherwise. As the names implies they want to guarantee *our* consumption and *our* enjoyment of these other living things. In their own right, natural objects have counted for little, in law as in popular movements...however the rightlessness of the natural environment can and should change.” (Stone 1972)

Stone seems to believe that a “*for us*” argument somehow prevents us from granting “rightlessness nature” rights. As I believe I have sufficiently proved, that is not the case. My argument is, of course, not an exclusively *for us* one but still does have components of anthropocentrism. This though has not prevented us from developing a coherent and agreeable argument for the bestowing of rights onto ecosystems. Stone (as do many others) believe we are waiting for some great change in social consciousness before any sort of rights can be ascribed onto the environment. I, as I will explain more towards the end of this paper, believe that we need to give nature rights in order to *cause* the change in social consciousness and law that Stone is calling for. The principle of inclusiveness with axiological anthropocentrism has sufficiently proven the moral imperatives of protecting nature, and hopefully we can protect nature by allowing for ecosystems to become their own legal entities.

CHAPTER III

LEGAL IMPLICATIONS OF GRANTING ECOSYSTEMS LEGAL PERSONHOOD

Legal Rights and Personality

Before diving into the legal-operational aspects of granting ecosystems legal personality we should first differentiate between moral rights and legal rights. Moral rights are those things that we have been discussing up to this point. When a being is said to have a moral right it is able to make a reasonable claim upon some moral actor that preserves the right-holder's interests. For example, you have the moral right to not being betrayed. If you told me a secret in the strictest confidence and I proceed to tell anyone who listens because it amuses me, I have offended your moral claim of loyalty on me and have committed a moral wrong towards you. An entity possesses a legal right, on the other hand, if some public authority is prepared to give at least some review to the actions that have offended that right. We all have a legal right to our life. If the government were seeking to take that right away, then they must provide evidence and sound reasoning before a court that proves it is just for us to lose our right to life. If government officials could simply come along and kill whomever they please whenever it pleased them (without any punishment), then it cannot be said that we have a legal right to our lives at all. Moral rights and legal rights do not always line up, but our moral values are ideally reflected in our legal systems and serve as strong arguments in legal theories of what legal rights we should have.

When an entity has legal personhood in the eyes of the law they have the capacity to have enforceable interests, thereby becoming holders of certain legal rights, and they can take action to protect those rights. Before an entity can qualify as a legal person there are five requirements that must be met: existence, will, subjective rights, economic interests, and juridical personality (Adriano, 2015).

Existence

First, in order to be a legal person, the being in question has to exist in *some* sense. In order to have obligations owed to or by it there must *be* an entity with the capacity to be party to legal relations. Legally speaking, there are two types of persons, natural persons and legal persons. The category of ‘natural person’ only extends to real, actual human beings. All human beings are, generally, automatically granted legal rights and the ability to have obligations. A legal person, however, is declared as such by a governing authority. It lacks a real will of its own. It is understood that the legal person is a mind-dependent entity and therefore it does not exist outside legal considerations (Adriano 2015). I have already discussed the issues complicating the existence of ecosystems and will address this issue further in the next section.

Will

Secondly, a will of the subject has to be present. A will is to be understood as a subjective consciousness linked to an ability to make choices. That being said, just because an entity technically lacks a will, this does not mean that it cannot be attributed one by the law. Typically, we see a phenomenon such as this when dealing with an infant or a *capitis deminutio* (person with diminished mental capacity). Where the person cannot form a will or speak for herself a representative steps in and speaks for the subjects interests on her behalf. Additionally,

we see wills being ascribed to non-human entities, such as ships, corporations, universities, or even sports teams. Texas A&M University, for instance, may engage in contracts with construction companies or reach settlements in lawsuits. These arrangements provide things to both parties involved, but we cannot physically speak to Texas A&M University to see what it itself desires from these agreements. Instead, a single representative speaks in place of the board of regents, university staff, and student body collectively. This legal technique is similar to what I will propose for ecosystems. This component of being a legal person will be discussed in depth in the “Guardianship for Ecosystems” section of this paper.

Subjective Rights

Third, the entity needs to have subjective rights. Subjective rights just rights that are allocated to the subject (or person) in question. The content of these rights is defined by “the power of the juridical norms which is granted to express or omit certain conduct that ensures the judicial protection” (Adriano 376). Essentially, there need to be laws in place which protect the legal entity’s interests. When its legal right has been infringed upon there is some authority that will see to remedying the damage at the expense of the wrongdoer. Subjective rights are essentially official recognition of the legal entity’s individuality by its legal order. For the most part, there are already laws in place which protect ecosystems, although these have not yet been conceptualized as rights *of* the ecosystems. The subjective rights of ecosystems will also be further explored in the next section of this paper when we discuss the mixing of public and private law.

Economic Interests

Fourth, a legal person has to have economic interests. In many cases when a legal person suffers they cannot be fully restored to their previous state through an equitable remedy; the damage they suffered is practically irreversible. When this is the case courts will award legal remedies (a monetary value equal to the loss suffered). If a legal entity could not be restored with the default legal remedies then they would stay injured with no alternative for resoration. This would lead to too many unresolved damages in a civil lawsuit making actual compensation impossible. Ecosystems have *some* capacity to be relieved through money alone, but not in every instance. There are ways around this one complication which will be addressed and resolved in the “Suing for Damages” section of this project.

Juridical Personality

The fifth requirement for legal personhood is juridical personality which is the focus of this chapter. It is the last piece in the puzzle needed for ecosystems to become legitimate legal persons. Juridical personality allows for the exercise of rights and fulfillment of obligations, the power to use one’s will before a court of law, and the capacity to have remedies run to the benefit of oneself directly. I will be defining juridical personality in terms of Christopher Stone’s three major components of “being a holder of legal rights,” with a focus on how it applies to ecosystems specifically, redefining them as the three major components of legal personhood:

- (1) “The thing can institute legal action *at its behest*” (Stone 11)

As we have discussed earlier, a major problem with today’s system of protecting the environment is that its protection is dependent on the actions of others who have actual legal standing. This first component of legal personhood ensures that an ecosystem could seek reparations on its own,

whether or not anyone else was also in a position to claim a right to reparations. Recall in the earlier example (the factory polluting the river causing farmers downstream to lose their crops), the polluted river could now sue the polluting factory itself whether or not the farmers were also harmed.

(2) “In the determining the granting of legal relief, the court must take *injury to it* into account” (Stone 11)

With this second aspect the opportunities for an ecosystem to receive redress grows tremendously. A whole new world of damages committed against an ecosystem can now be presented before a court where they couldn’t before. Carrying on with the earlier example, the river not only can seek legal action on its own behalf, but it can now sue for damages committed against *it* (death of flora and fauna, interruption of natural cycles, cost of clean up, etc) instead of the economic losses that occurred via the farmers’ lost crops.

And finally,

(3) “Relief must run to the *benefit of it*” (Stone 11).

This means that any and all legal or equitable remedies a court awards an ecosystem will be poured right back into restoring the ecosystem and building a trust fund for the ecosystem, as opposed to paying the farmers back for their lost crops in an attempt to make them whole again. All of this benefits the ecosystem itself.

It is through these three components that it can be said that an entity actually has legal personhood, and is therefore a legal person.

Why, though, should we consider things with no intrinsic moral value as legal persons? The answer is simple and familiar; it is a matter of expediency. We buy into these ‘legal fictions’

because they are easier to work with than the complicated alternatives. Corporations are treated as their own people because this legal tactic allows for shareholders to limit the amount of risk they personally take when engaging in a new business endeavor. If we chased after the individuals who make up a corporation every time a legal issue arises, the legal system would be exhausted with numerous law suits. In most of these, it would be difficult to establish clear standing. Similarly, boats are treated as people by courts because it is the easiest way to get to the owner of the vessel, who is likely outside the jurisdiction of the court while their boat is not. Since it is easier to simply go after the ship “judges...shut their eyes to the irrelevant differences between a ship and a man...treat the ship as if it were a man for the purpose of defending a libel” (Smith 287). The same logic can be extended to the argument for the legal personality of ecosystems. Recall practical holism and its similar argument for treating ecosystems as single wholes for the sake of efficiency. Since it would be incredibly difficult to seek legal recourse on behalf of every animal and person (present and future) injured by the abuse of an ecosystem, we should simply deal with the ecosystem itself.

Mixing Private and Public Law: Dual Personhood

The legal structure of corporations offers the most guidance when trying to dissect how to grant ecosystems legal personality. Corporations are unique legal constructs in that they have *dual personhood*. As Abigail Hutchinson roughly put it, “[Corporations] are simultaneously persons who can own property, but are also property that is owned by shareholders” (Hutchinson 181). The main point here being that corporations are independent legal entities while maintaining their purpose of serving those who comprise it. They are indeed legal people but not in the same sense that natural persons are. The differences do not stop at corporations being

partially property, but also extends to them lacking some of the rights natural persons have. For example, corporations cannot claim the rights that ordinary United States citizens can from the Comity Clause in Article IV of the Constitution. This decision comes from *Bank of Augusta v. Earle* when The Supreme Court of the United States ruled that corporations cannot automatically claim the rights that apply to its constituents as members of a state. Still, corporations are provided some rights such as those found in the first, fifth, and fourteenth amendments of the Constitution. What I am proposing is for lawmakers to adopt a modified version of this arrangement for ecosystems. In this case though the ‘shareholders’ are better understood as land owners. Under this new framework, ecosystems could and should still be owned by private individuals or state or federal governments, but at the same time be allowed to become their own legal entity. They should be both property and person. It is worth noting dual personhood is not some new earth-shattering, concept that I am proposing, but is a notion with a legal framework already in place; all it needs is a little filling in. As far as which constitutional rights would apply to ecosystems, I do not know at this moment. However, just as with many other things in the legal history of America, problems will arise and be resolved as time passes on. Many benefits would come from letting ecosystems become their own legal beings while still remaining property. The biggest of which is the opportunity it provides to create a hybrid of several different fields of law and to utilize the best parts of each to allow for maximum protection of an ecosystem.

Before proceeding to discuss how our legal systems will function around ecosystems as legal entities, I would first like to address and resolve the ontological problem of ecosystems which I introduced earlier. How are we meant to interact with ecosystems without having a

coherent understanding of where they do and don't exist? By working with practical holism in mind we come close to a system similar to what we use now: we set arbitrarily-defined boundaries. We should set these boundaries on a piece of land and then say, "All the plants, animals, environmental objects, and natural systems within *these set boundaries* are the ecosystem in terms of the law." My answer isn't a perfect one (as it does not include *all* the parts of *all* the ecosystems in the country), but it is certainly an effective one. It would become a very un-scientific and imprecise definition for what an ecosystem truly is, but it is as close to identifying one as we can presently hope for in law. Take for example the Redwood National and State Parks in California. The boundaries for the parks already exist, allowing for the state and federal governments to have a coherent grasp of where their parks begin and end. We should simply do the same when defining ecosystems in their capacity as legal people. Of course, this would not encompass all components that make up the 'ecosystem' that the Redwood National and State Parks are actually a part of; however, this clarification would cover enough of the actual ecosystem in order to effectively deal with the whole. The residual parts still benefit from the arrangement. By doing this, we would have actual tangible ecosystems ready to be participants in legal endeavors.

Outlining ecosystems in this way would not just apply to public parks/land, but to privately owned land as well. An ecosystem with legal personhood may happen to be owned by one or several individuals. The owners of these lands should still be able to keep, sell, and develop their properties as they please, but only as long as they are still consistent with the reasonable consideration owed to the ecosystem that constitutes their land. Suppose that neighbors X, Y, and Z collectively own ecosystem B. They each have a duty to not cause harm to

their section of B, but they may still use their land in any non-destructive way they please (unless, of course, they can justify compromising B's interests in some fair way for some long-term benefit). If they do happen to cause harm to the ecosystem then the ecosystem itself, as a legal person and via a guardian, can sue for damages. Again, the notion that a landowner does not have absolute control over their land isn't completely unprecedented. In the United States' modern legal system, owners of properties with wetlands on them are prohibited from dredging or filling the wetlands until the owners receive a permit from the Army Corps of Engineers. The difference here is that the ecosystem can now defend itself without relying on the federal government.

As of right now, all lands (and ecosystems by extension) in the United States are owned; either by citizens, businesses, or by some arm of the government. I want to begin by saying that I do NOT believe that this should change, and that ecosystems should own themselves exclusively in every sense. However, I do maintain that this system can be reconceived in order to improve the defenses ecosystems enjoy. We have already discussed how ecosystems only have limited protection because of their dependence on the people who own them to pursue legal action. These 'protections' mainly fall under public law (any legal engagement where the state is a party), more specifically criminal and administrative law. Criminal law and administrative law are both chiefly statutory, which makes identifying offenses easier when they occur and provides consistent and outlined punishments for courts to dole out in response to those offenses. The focus in both of these areas of law is on the offender — how to identify them, how to punish them, and how to deter further infractions — instead of the offended. Since environmental law is majorly public law, this simple fact has allowed the environment to suffer in large degrees when

injured by outsiders. This all being stated, it would not be fair to assert that these efforts have not provided at least *some* protection to nature. It is quite possible to imagine that the fines and fees that governments impose on illegal hunters or the wayward lumberjack does deterred at least some harmful behavior from finding its way to ecosystems.

Though the public law does offer some protection, there is room for quite a bit of improvement. By utilizing dual personhood government agencies and private individuals could still take advantage of all the rules and regulations legislative bodies have and will pass in attempt to protect the environment. The property side of the ecosystems qualify them to gain from these rulings. However, the legal person side of an ecosystem would allow for a whole new field of law to come into play, tort law. Tort law is civil or private law (meaning the parties to the dispute may both be private legal persons rather than state entities), and it focuses on providing remedies for individuals who have been wronged in order to make them whole once more. The end ruling of a criminal or administrative case would be similar to serving a sentence or paying a fine to society (i.e. the government), meanwhile, the end ruling of a tort law suit would be for the tortfeasor paying the injured party back directly. In order to participate in a civil lawsuit one *must* be a legal person *and* be able to prove that they have standing (that they have been harmed directly). It is in these instances that the river from our earlier example could sue the polluting factory, a coastline could sue a negligent oil company for an oil spill, or a forest could sue a reckless camper who started a forest fire. I believe that, if ecosystems were able to be their own legal persons, tort law is where a majority of their protections would stem from. Ecosystems could fully recover from the damages inflicted upon them by seeing the remedies for such damages running directly to their benefit.

Since this legal tactic would shift environmental law from public to mainly private, the responsibility of protecting the environment would shift from the government onto other parties (as we will see further in the guardianship section). This frees conservation efforts from the political pressures that would usually inhibit them. Currently laws crucial to the protection of a particular ecosystem are passed by the EPA or Department of Interior during one administration only to be rolled back in the next. The environment's welfare is greatly affected if a president appoints apathetic leaders to these agencies. It is well known by now that the environment is in critical condition and its well-being should be of the utmost importance. There is little time to waste for allowing environmental protection to continue to be a political football. By granting ecosystems legal personhood we eliminate the distractions that are usually provided by modern day politics and begin dealing with the real issue, environmental degradation.

It seems to be that the dual personhood approach to revolutionizing environmental law is one of the best presently available. When ecosystems can be both person and property they can be readily identifiable (even if it is in an imperfect way) by society, take action on their own accord, and be directly benefited by tort remedies. Additionally, dual personhood preserves the norm of owning private land, and keeps environmental preservation from being subject to bipartisan conflicts. Most important of all, however, dual personhood will maximize the protections offered to ecosystems through the use of criminal, administrative, and civil law.

Guardianship for Ecosystems

In the typical, everyday lawsuit plaintiffs and defendants are both able to represent themselves in court without needing another to show up in their place. As we have seen though, there are plenty of cases in our modern legal system where a person is either too young, declared

de jure incompetent, or otherwise incapable of representing herself in legal matters. In these instances the courts search for another who is mentally capable to manage legal affairs and who can demonstrate that they have a vested interest in the represented person's well-being. Once this guardian is able to prove these things before the court they are subsequently given the authority to manage the incompetent's legal affairs. Obviously, the fact that someone is unable to speak for themselves in a courtroom is hardly an effective argument against their capacity for standing. It is through this understanding that we can come to the solution of guardianship for ecosystems. Christopher Stone writes, "One ought, I think, to handle the legal problems of natural objects as one does the problems of legal incompetents—human beings who have become vegetables" (Stone 17). Stone has set forth a very agreeable model for guardianship, and it also happens to be the one I think works best in the context of this thesis, except instead of "natural objects" I will be analyzing how his theory would best be applied to the new legal understanding of ecosystems as I have presented it.

The first problem we face when arguing for the guardianship system is determining exactly who will be the guardians. Ideally, the guardianship position would be filled by those in the community of the ecosystem *or* someone with the knowledge and resources needed for effective representation (e.g. The Sierra Club, Environmental Defense Funds, Natural Resource Defense Counsel, etc.). However, the position should also remain apolitical, not something a candidate would run for. Stone envisions that if a "friend" of the ecosystem sees it suffering or about to suffer from some future operation, then they could apply to the appropriate court for the creation of guardianship (Stone 1972). This does not limit the position of guardian to exclusively be filled by individual people, but allows for those organizations dedicated to the protection of

the environment (with top-notch lawyers and other additional resources) to step in and maintain the ecosystem's well-being. This is similar to the system in place for finding representatives for legally incompetent persons, except the pool for potential representatives is remarkably larger, allowing for a higher chance of someone to come forward and aid the ecosystem.

Once some "friend" has secured the position of guardian they will be endowed with certain powers and responsibilities. It is important for the guardian of any ecosystem to have rights of visitation, whether the ecosystem is on private or public land, in order to determine the condition of the ecosystem and better assess the present issues. If the guardian could find reasons for legal action they could then raise the ecosystem's legal rights and seek action under its name. From there the guardian would have the power to seek and hire legal counsel for the ecosystem using the ecosystem's trust fund (if one is yet present). They would then be the ones to reach settlements and administer court ordered remedies back into the ecosystems. On top of their obligations inside the courtroom, guardians would see to a number of other protective tasks. Including (but not limited to) monitoring pollution, representing their ecosystem in legislative/administrative hearings, and overseeing restoration efforts apart from legal conflicts. These duties would not go unrewarded as guardians would be able to claim part of the rewards as compensation for their legal services.

As with any external representative, there is the potential for conflicts of interests. It is not a stretch to believe that businesses may attempt to buy off a guardian in exchange for the allowance to develop over some ecosystem. If we are true to the philosophy, the only valid reason an ecosystem should be destroyed is if its destruction is a necessary component for some greater benefit to humanity. Since this is the case a guardian would have very little space to hide

if they were to become corrupted and accept these buy-outs. However, if the guardian were to accept such a bribe then that would be basis for removal. There are a host of other reasons that a guardian might be substituted or removed by the courts. There are already procedures in place to deal with unsuitable representatives for people; these policies can be adopted and adapted for ecosystems and their guardians.

The guardianship system I have observed is by no means flawless, and can be immensely improved upon through the research of future scholars. Some problems that are worth addressing are: How much is a guardian allowed to pay themselves? Should there be substantive laws in place to control the position of guardian across the board? Who is to oversee the guardian, and make sure that they stay true to their intended mission (the Attorney General perhaps)? Is guardianship a life-long position? These are just some issues that arise upon contemplation of the guardianship system, but they are not detrimental to the idea and are merely points for refinement.

By implementing a guardianship system that utilizes the framework present in this paper we would have secured reliable voices for ecosystems across the nation. Guardians (especially those native to the ecosystem's community) are more apt to have the best interest of the ecosystem at heart than current administrative agencies do. Due to this, they will be more willing to rely on the power of the courts to enforce the conservation and maintenance of their respective ecosystems. Improvements will be seen in many areas if conservation became a duty of a society rather than a duty of the federal government. Again, the current guardianship system isn't perfect, but with some more exploration it promises to be quite fruitful.

Suing for Damages

An ecosystem suing for its own damages (once allowed) would become the most effective environmental legal technique for conservation to date. In most cases, when a guardian evokes the name of their represented ecosystem it would be either to claim damages from some offending party, or to ask for an injunction to prevent future destruction. Any and all legal pursuits would have the same base goal, to inhibit environmental degradation. In order to better shape an idea of what this would look like in practice we need to discuss several major points: where the money for these legal battles would come from, what kind of damages ecosystems could seek remedies for, how to handle non-economic losses in an ecosystem, and what the situation would look like if ecosystems were the ones being sued.

Lawsuits are first and foremost very expensive. Between attorneys' payments and other legal fees the price may soon become too high for a local community to stomach if they were the ones being called to foot the bill. However, since this is intended to remain mostly a local operation, there must be a way to finance these endeavors without relying on federal stipends or on a guardian's private funds. It is the hope that any established ecosystem would be able to create a trust fund under their name, which only the guardian has control over (Stone 1972). This fund would be created and replenished through donations from private individuals, part of the funds from its contributions to the economy, and with portions of legal winnings. By having a private trust fund most of the issues that stem from general treasuries (such as uneven distribution) would be avoided altogether. It is also from this fund that a guardian could be paid in order to be compensate for her time and efforts in overseeing the ecosystems legal and other

protective affairs. This fund allows for the guardian and the members of the ecosystem's community to take very small financial risks when attempting to safeguard the environment.

Once the proper funds are established then an ecosystem could begin appearing in civil courts. It is the intention of civil law to make the plaintiff whole again (i.e. to put them in the same position they would have been in had they not been injured). It is the duty of the guardian to collect a list of the often minute and dispersed damages that the ecosystem has suffered, make an estimate sum of all remaining damages not cognizable, and then present those before the courts. The damages that an ecosystem would search for would change in specifics depending on the type of ecosystem it is. For example, a forest may sue for the costs of reseeded and cultivating lost plant life, purifying contaminated water sources, restocking wildlife, and replacing lost profits from ecotourism. Meanwhile, a coral reef would claim the costs of cleaning the water, nourishing the coral reef back to health, and restoring the ocean life. Basically, all ecosystems would seek compensation for destroyed/damaged plants, animals, and natural cycles and loss profits (if it earns any to begin with). Though these solutions may cover most of the damages an ecosystem would typically suffer, it leaves out the rather large group of things lost without any distinguished economic value. These problems require a unique solution of their own.

In most cases, when an ecosystem suffers damages I suggest that we resort to simply *replacing* those things which were lost, whether they have standard market value or not. The replaceability of natural objects is typically a controversial topic, but I believe an appropriate answer could be found for the purposes of this paper. The technical definition of replaceability goes as such:

Suppose that a certain being, X, has on balance an enjoyable life (i.e., a life that overall contains more pleasure than pain, or a positive balance of all things that contribute to the life's being worth living). Suppose, furthermore, that we can painlessly kill X and replace it with another being, Y, that has an equally enjoyable life. If we replace X by Y, the total amount of utility in the world will remain constant (Sencrez 2011).

Though this line of thinking goes against many of our moral intuitions today, it may just be a practical legal technique when determining relief for ecosystems. Replaceability is a controversial topic mainly because of its claim that there are organisms that are entirely replaceable. It is the belief of a few environmental philosophers that self-conscious beings are not replaceable while merely conscious ones are. Self-conscious beings are those who have some understanding of their future (i.e. people). Due to this they are able to form opinions (desires) about how they want their futures to turn out. Killing these beings would cause their desires to go permanently dissatisfied. Due to this we have a *prima facie* reason to believe that it is wrong to kill these creatures (Sencrez 2011). Meanwhile, any being that is merely conscious (or not conscious at all) cannot anticipate the future, and, therefore, cannot set any future goals. As long as they did not suffer during their death, their replacement is completely okay, because no desires have been disappointed in the moment of death. In other words, all non-human organisms are replaceable.

I'm suggesting that we take this odd moral sentiment and convert it into a worthwhile legal one. If all plants and animals are replaceable then so are the ones without economic value. In other words, there is something about them *worth* replacing. If a defendant has caused the

destruction of some section of an ecosystem then their first course of action should be to replace it wholesale. Say a defendant caused the deaths of so many economically useless water fowl, then they can be sued for the cost of nourishing the remaining and promoting their repopulation. Similarly, if a defendant has caused the leveling of a number of trees, then they would be sued for the cost of replanting the same number of the same type of trees somewhere else. The restoration of the environment is the intent of nearly every ecosystem lawsuit, and all forms of remedies should reflect this. Replaceability may be an unsound moral theory, but it is the best solution to seeking damages for the loss of natural objects when possible. Of course, in many instances when the natural objects do not have market value *and* cannot be simply replaced we require another course of action. This, though, is not a legal issue unique to this paper.

I suggest we handle those situations much how we handle other cases when legal remedies won't suffice. Many times calculating the damages is difficult because it is not just simple reflection of economic factors. In lawsuits where the plaintiff has unjustly lost some appendage or loved one rough estimates are made to decide how much money she is due. We do this not because we see the market value of her pain as some objective fact, but because it is better to do this than just ignoring it altogether. In those occasions where nothing can truly fix the ecosystem we should make the same rough estimates. It is better to take any and all losses into account in some way than to just let them slip by.

As we understand legal personhood now, if you have the capacity to sue you also have the capacity *to be* sued. This stems from our implicit and explicit duties to others which we carry around with us everywhere we go. I have a duty of reasonable care whenever I'm out in public (whether I know it or not), which prevents me from acting recklessly and endangering others.

Corporations have a plethora of duties instituted to ensure the safety of the public (e.x. thoroughly inspecting goods before distribution). Civil lawsuits arise when these duties are neglected resulting in the harm of another. As I mentioned before, it is a characteristic of legal personhood to have obligations. This is usually understood as the ability to have obligations made to you and from you. However, I believe that an ecosystem is of a unique status which should allow them to be immune from being sued. Stone entertained the thought of suing an ecosystem if, by some natural disaster, it were to cause harm to a human. The idea was never fully developed and has some flaws at face value. To me, it seems odd that the owner of lake front property could sue the lake if it were to flood and destroy his dock/boat. It cannot coherently be said that 'the lake' destroyed the man's property. First off, the will an ecosystem is ascribed by the court does not extend to acts outside of the courtroom. It cannot conspire against another nor carry out actions ignorant of the harm they may bring. Though it is true that corporations lack wills too, they can still be held to a 'reasonable person' standard for their actions. This is because the actions a corporation performs are driven by a will, be it the collective will of the shareholders. This is the main difference from the legal personhood that ecosystems and a corporations have. No human could reasonably make a claim upon the lake for it to respect their property, like they could a corporation, and therefore no obligation can be formed on the ecosystem. Not to mention that there is yet another ontological problem of natural disasters (is a storm really a part of the ecosystem? Even in its legally defined way?). This isn't to say that the ecosystem doesn't have any duties to us; it simply has duties that it cannot, by its very nature, fail to meet. It could be said that an ecosystem works to keep humanity healthy. They provide clean air, purified water, fertile soil, and many other things required for humans to

lead comfortable, happy lives. Since ecosystems provide so many benefits for human beings, it does not require any additional demands to be made from it. The only reason an ecosystem could be sued for ignoring its duties if it were to magically develop an actual will, and willingly cease to stop being productive for life. Then, maybe, it could be dragged to court. By observing this, we can establish that obligations are still indeed present to qualify ecosystems for legal personhood. However, these obligations are of such a special class that it prevents ecosystems from being the object of frivolous and confusing lawsuits. Despite my claims in this section, I am aware that I could be ignorant of some pertinent legal facts, and understand that it could very well be the case that suing ecosystems make sense. This is a topic I would be interested in seeing researched further.

Effects on Social Consciousness and Policy Making

The basis for granting ecosystems legal personhood is so they can gain the ability to defend themselves when faced with unjust treatment, and the basis for that is to inhibit and reverse the global trend of environmental deterioration. Allowing pieces of nature to become legal entities may sound outlandish at first but that is probably because it is still a very new concept. This thesis, though, has not been the first to explore the representation of the environment in legal affairs. In fact, on November 17th, 1971, it came up in the Supreme Court's dissents over *Sierra Club v. Morton*.

In the early 1970s Walt Disney Enterprises sought to construct a ski resort in an undeveloped part of the Sequoia National Forest, Mineral King. The size of the ski resort was so massive that the proposed project required a new highway as well as high voltage power lines to be constructed through the forest. Due to the massive environmental implications the Sierra Club

filled for permanent and temporary injunctions to prevent Disney from receiving the appropriate permits to develop this land. The justices of U.S. Court of Appeals for the Ninth Circuit, however, overturned the injunctions upon appeal. Their reasoning being that the Sierra Club lacked standing to pursue legal action, for they themselves were not harmed directly by the development of Mineral King. The case eventually found its way to the U.S. Supreme Court where the Ninth Circuit's decision was upheld on the same grounds.

The theory that ecosystems/nature should be capable of having their own standing had not been presented during the arguments. However, Justice Douglas found this case to serve as the perfect opportunity to write about it anyway. His dissent was such:

“The critical question of ‘standing’ would be simplified and also put neatly in focus if we fashioned a federal rule that allowed environmental issues to be litigated before federal agencies or federal courts in the name of the inanimate object about to despoiled, defaced, or invaded by roads and bulldozers and where injury is the subject of public outrage. Contemporary public concern for protecting nature’s ecological equilibrium should lead to the conferral of standing upon environmental objects to sue for their own preservation... this suit would therefore be more properly labeled as *Mineral King v. Morton*” (*Sierra Club v. Morton*)

Moreover, Douglas had the support of two other justices on the Supreme Court: Justice Brennan and Justice Blackmun. After the decision for *Sierra Club v. Morton* had been handed down, three out of the nine sitting judges had expressed their support for something similar to ecosystems

gaining legal personhood, two had decided to refrain from commenting, and the final four had not reached the same conclusion only because the argument was never technically brought up.

It is evident that the concept of granting ecosystems legal personhood is at least somewhat viable for even some of the greatest legal minds in the country once believed in something similar. Each proposal to grant legal rights to a new entity will always be astonishing at first. This is because a right-less thing is going to be perceived as right-less until there is a movement for its empowerment. A thing will be valued for itself once it can be seen as something with value. Such was the case with women and people of color. African-Americans were once seen by the South as objects that were needed for the economy, not as real human beings. Once they were recognized as something more than slaves, people, laws were passed in their favor, and they gained more recognition and respect as time went on. Passing legislation legitimizing their legal rights forced society to, with time, fully realize their importance. What was then seen by some as a legal fiction is seen today as a legal and moral fact.

Granting ecosystems legal personhood is simply the next natural step to our constantly evolving legal system. Once ecosystems are respected as legal entities law makers will be forced to consider their welfare when forming policies that affect the environment, even if it is only in those small ways that will eventually begin to add up. Humans and businesses will be more cautious when interacting with the environment in potentially detrimental ways. Ecosystems defending themselves in a courtroom may seem outrageous at first, but it is a proposal with valid philosophical, legal, and real world underpinnings supporting its full weight.

CONCLUSION

This thesis has looked into all the major considerations of granting ecosystems legal personhood. We did so by first looking for a value theory which helped to outline which things we should concern ourselves with protecting, and then reviewing how this value theory applied to ecosystems as unitary beings. Then we related the philosophy to the legal practice by observing how exactly those things worth protecting were provided protection. Objections were raised to the current legal system and objections were answered in respect to the proposed legal system of this paper. Lastly, we detailed how ecosystems as legal entities would function in and outside of courtrooms. Throughout the course of this paper several things were discovered.

First, when considering the philosophical grounding for this thesis we discovered that ecosystems themselves don't matter morally. In fact, they don't even exist in a universally understood way. This prevented us from making the easy argument that since ecosystems themselves matter then they should be given legal rights. However, we did discover that all the things that constitute or will be affected by an 'ecosystem' do matter in some capacity. A cogent value was found through the principle of inclusiveness and axiological anthropocentrism. With this hybrid theory we were able to establish that all animals are morally valuable, but the ground projects of humans just so happen to be more important to satisfy than the non-categorical desires of animals. We were able to avoid the philosophical problems of ethical holism by adopting practical holism and using the interests of an ecosystem's members as a way to support an argument for an ecosystem's legal personality.

Second, when relating the philosophy to the practice of granting ecosystems legal personhood it was discovered that there are indeed many problems with today's system of protecting the environment. This included an ecosystem's lack of standing when suffering damages, the polarizing political conflicts over environmental conservation, the motivational problems of suing on behalf of an ecosystem when a third party has standing, and the time and space problem of damages. We were then able to see how providing ecosystems with legal personhood protected the resources and animals of an ecosystem, while also preserving the interests of those people today and of the future.

In the final chapter of this paper we were able to observe how ecosystems as legal people would work in theory. First and foremost, we were able to give body to ecosystems despite their ontological issues. Once that was solidified, we discovered a way to take advantage of the upsides of criminal, administrative, and tort law by giving ecosystems the capability of being both property and person through dual personhood. A basic outline of how the guardianship of an ecosystem would function was given and left room for future inquiries on the matter. Lastly, we observed how recognizing ecosystems as legal people would force society to repeat history and start looking at ecosystems (and the whole environment in extension) as something worthy of our moral and legal considerations.

This thesis in no way claims to answer the hundreds of minute and practical problems likely associated with granted ecosystems legal personhood. However, it was the purpose of this paper to supply a substantial framework within which the solutions to these issues may be found, and I believe it has succeeded in that aspect. All of this was done for one purpose and one

purpose only: to discover a more effective way of preserving and restoring the environment in these real, critical times.

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